



PTO-1449 (Modified) U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE INFORMATION DISCLOSURE STATEMENT BY APPLICANT	ATTY. DOCKET NO. RA048DC3	SERIAL NUMBER 09/870,322
	APPLICANT(S) BARTH ET AL.	
	FILING DATE MAY 29, 2001	GROUP ART UNIT 278T 2155

U.S. PATENT DOCUMENTS

EXAMINER INITIALS	DOCUMENT NUMBER	DATE	NAME	CLASS	SUB CLASS	FILING DATE
De	5,455,803	Oct. 3, 1995	Kodama			
	5,444,667	Aug. 22, 1995	Obara			
	5,404,338	Apr. 4, 1995	Murai et al.			
	5,392,239	Feb. 21, 1995	Margulis et al.			
	5,386,385	Jan. 31, 1995	Stephens, Jr.			
	5,384,745	Jan. 24, 1995	Konishi et al.			
	5,381,376	Jan. 10, 1995	Kim et al.			
	5,365,489	Nov. 15, 1994	Jeong			
	5,341,341	Aug. 23, 1994	Fukuzo			

FOREIGN PATENT DOCUMENTS

EXAMINER INITIAL	DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUB CLASS	TRANSLATION YES/NO
DW	0 561 370	Mar. 17, 1993	EPO			

OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

De	MOSYS, "MD904 TO MD920, Multibank DRAM (MDRAM) 128Kx32 TO 656Kx32" Datasheet, Document DS01-2.1, MoSys Inc. California, 12/18/95, pp.1-14

EXAMINER	DATE CONSIDERED 3/02
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U.S. PATENT DOCUMENTS

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Qu	5,311,483	May 10, 1994	Takasugi			
	5,339,276	Aug. 6, 1994	Takasugi			
	5,327,390	Jul. 5, 1994	Takasugi			
	5,323,358	Jun. 21, 1994	Toda et al.			
	5,319,755	Jun 7, 1994	Farmwald et al.			
	5,305,278	Apr. 19, 1994	Inoue			
	5,260,905	Nov. 9, 1993	Mori			
	5,179,687	Jan. 12, 1993	Hidaka et al.			
	5,124,589	Jun. 23, 1992	Shiomi et al.			
	5,111,386	May 5, 1992	Fujishima et al			
	5,083,296	Jan. 21, 1992	Hara et al.			
Y	5,077,693	Dec. 31, 1991	Hardee et al.			
	4,825,411	Apr. 25, 1989	Hamano			
Qu	4,800,530	Jan. 24, 1989	Itoh et al.			

FOREIGN PATENT DOCUMENTS

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OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

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U.S. PATENT DOCUMENTS

EXAMINER INITIALS	DOCUMENT NUMBER	DATE	NAME	CLASS	SUB CLASS	FILING DATE
	4,792,929	Dec. 20, 1988	Redwine et al.	—	—	
	5,655,113	Aug. 5, 1997	Leung et al.			

FOREIGN PATENT DOCUMENTS

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OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

	Minutes of meeting and presentations made at JC-42.3 COMMITTEE ON RAM MEMORIES, MEETING NO. 59 Sept. 18, 1991 Philadelphia
	Minutes of meeting and presentations made at JC-42.3 COMMITTEE ON RAM MEMORIES, MEETING NO. 58 May 9, 1991 Anchorage AK
	Minutes of meeting and presentations made at JC-42.3 COMMITTEE ON RAM MEMORIES, MEETING NO. 65 Dec 9-10, 1992 Ft Lauderdale, FL
	Minutes of meeting and presentations made at JC-42.3 COMMITTEE ON RAM MEMORIES, MEETING NO. 64 Sept 16-17, 1992 Crystal City, VA
	Minutes of meeting and presentations made at JC-42.3 COMMITTEE ON RAM MEMORIES, MEETING NO. 66 March 3-4, 1993 Scottsdale AZ
	Minutes of meeting and presentations made at JC-42.3 COMMITTEE ON RAM MEMORIES, MEETING NO. 72 Sept 13, 1994 Albuquerque NM
	Minutes of meeting and presentations made at JC-42.3 COMMITTEE ON RAM MEMORIES, MEETING NO. 75 May 24, 1995 New Orleans
	Minutes of meeting and presentations made at JC-42.3 COMMITTEE ON RAM MEMORIES, MEETING NO. 76 Sept 11, 1995 Crystal City, VA
	Minutes of meeting and presentations made at JC-42.3 COMMITTEE ON RAM MEMORIES, Jan 17, 1995, San Jose CA

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U.S. PATENT DOCUMENTS

EXAMINER INITIALS	DOCUMENT NUMBER	DATE	NAME	CLASS	SUB CLASS	FILING DATE
	4,763,249	Aug. 9, 1988	Bomba et al.			
	4,445,204	Apr. 24, 1984	Nishiguchi			
	4,637,018	Jan. 13, 1987	Flora et al.			

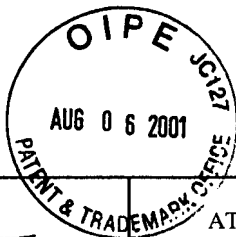
FOREIGN PATENT DOCUMENTS

EXAMINER INITIAL	DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUB CLASS	TRANSLATION YES/NO
	SHO 58-192154	Nov. 9, 1983	Japan			NO
	SHO 63-34795	Feb. 15, 1988	Japan			NO
	SHO 61-107453	May 26, 1986	Japan			NO
	SHO 63-91766	April 22, 1988	Japan			YES
	SHO 62-16289	Jan. 24, 1987	Japan			NO
	SHO 61-160556	Oct. 4, 1986	Japan			NO
	SHO 63-239676	Oct 5, 1988	Japan			YES
	SHO 63-217452	Mar. 6, 1987	Japan			YES

OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

	Knut Alnes, "Scalable Coherent Interface", SCI-Feb89-doc52, (To appear in Eurobus Conference Proceedings May 1989) pp. 1-8
	Hansen et al., "A RISC MICROPROCESSOR WITH INTEGRAL MMU AND CACHE INTERFACE", MIPS Computer Systems, Sunnyvale, CA, IEEE 1986 pp 145-148
	Moussouris et al., "A CMOS PROCESSOR WITH INTEGRATED SYSTEMS FUNCTIONS", MIPS Computer Systems, Sunnyvale, CA, IEEE 1986 pp 126-130
	"1989 GaAs IC Data Book & Designer's Guide", August 1989, Gigabit Logic Inc.
	"ICs for Entertainment Electronics Picture-in-Picture System Edition 8.89", Siemens AG, 1989

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U.S. PATENT DOCUMENTS

EXAMINER INITIALS	DOCUMENT NUMBER	DATE	NAME	CLASS	SUB CLASS	FILING DATE
	4,953,128	Aug. 28, 1990	Kawai et al.			
	4,499,536	Feb. 12, 1985	Gemma et al.			
	3,950,735	Apr. 13, 1976	Patel			
	4,755,937	Jul. 5, 1988	Glier			
	4,875,192	Oct. 17, 1989	Matsumoto			

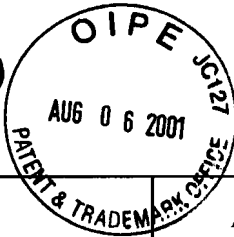
FOREIGN PATENT DOCUMENTS

EXAMINER INITIAL	DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUB CLASS	TRANSLATION YES/NO
	SHO 1-236494	Sept 21, 1987	Japan	—	—	

OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

	"High Speed CMOS Databook", Integrated Device Technology Inc. Santa Clara, CA, 1988 pp 9-1 to 9-14
	"LR2000 High Performance RISC Microprocessor Preliminary" LSI Logic Corp. 1988, pp. 1-15
	"LR2010 Floating Point Accelerator Preliminary" LSI Logic Corp. 1988, pp 1-20
	B. Ramakrishna et al., "The Cydra 5 Departmental Supercomputer Design Philosophies, Decisions, and Trade-offs" Computer IEEE, Jan 1989 pp. 12-35
	"LR2000 High Performance RISC Microprocessor Preliminary" LSI Logic Corp. 1988, pp. 1-15
	"Motorola MC88200 Cache/Memory Management Unit User's Manual", Motorola Inc., 1988,
	Moussouris, J. "The Advanced Systems Outlook-Life Beyond RISC: The next 30 years in high-performance computing", Computer Letter, July 31, 1989 (an edited excerpt from an address at the fourth annual conference on the Advanced Systems Outlook, in San Francisco, CA (June 5))

EXAMINER	DATE CONSIDERED 3/52
EXAMINER: Initial citation if reference was considered. Draw line through citation if not in conformance to MPEP 609 and not considered. Include copy of this form with next communication to applicant.	



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U.S. PATENT DOCUMENTS

EXAMINER INITIALS	DOCUMENT NUMBER	DATE	NAME	CLASS	SUB CLASS	FILING DATE
Per MS	4,928,265	May 22, 1990	Higuchi et al.			
	4,891,791	Jan. 2, 1990	Iijima			
	4,882,712	Nov. 21, 1989	Ohno et al.			
	4,821,226	Apr. 11, 1989	Christopher et al.			
	4,799,199	Jan. 17, 1989	Scales, III et al.			
	4,646,270	Feb. 24, 1987	Voss			
	4,315,308	Feb. 9, 1982	Jackson			
	4,183,095	Jan. 8, 1990	Ward			
	4,719,602	Jan. 12, 1988	Hag et al.			
	5,140,688	Aug. 18, 1992	White et al.			
	4,792,926	Dec. 20, 1988	Roberts			

FOREIGN PATENT DOCUMENTS

EXAMINER INITIAL	DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUB CLASS	TRANSLATION YES/NO

OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

Per MS	F. Anceau, "A Synchronous Approach for Clocking VLSI Systems", IEEE Journal of Solid-State Circuits, Vol. SC-17, No. 1, pp. 51-56 (Feb. 1982)
	Knut Alnes, "SCI: A Proposal for SCI Operation", SCI-6Jan89-doc31, Norsk Data, Oslo, Norway, pp. 1-24, Jan 6, 1989
	Bakka et al., "SCI: Logical Level Proposals", SCI-6Jan89-doc32, Norsk Data, Oslo, Norway, pp. 1-20, Jan 6, 1989
	Gustavson et al., "The Scalable Interface Project (Superbus)" (DRAFT), SCI-22 Aug 88-doc1 pp 1-16, August 22, 1988
	Knut Alnes, "SCI: A Proposal for SCI Operation", SCI-10Nov88-doc23, Norsk Data, Oslo, Norway, pp. 1-12, Nov. 10, 1988

EXAMINER	DATE CONSIDERED 3602
EXAMINER: Initial citation if reference was considered. Draw line through citation if not in conformance to MPEP 609 and not considered. Include copy of this form with next communication to applicant.	



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U.S. PATENT DOCUMENTS

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	5,301,278	4/5/94	Bowater et al.			
	5,345,573	9/6/94	Bowden, III et al.			
	5,504,874	4/2/96	Galles et al.			
	5,533,204	7/2/96	Tipley			
	5,553,248	9/3/96	Melo et al.			
	5,611,058	3/11/97	Moore et al.			
	5,638,531	6/10/97	Crump et al.			
	5,649,161	7/15/97	Andrade et al.			
	5,548,786	8/20/96	Amini et al.			
	5,404,463	4/4/95	McGarvey			
	5,381,538	1/10/95	Amini et al.			

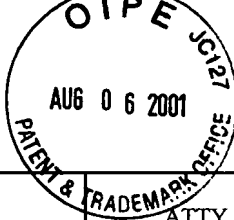
FOREIGN PATENT DOCUMENTS

EXAMINER INITIAL	DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUB CLASS	TRANSLATION YES/NO
	033 9224	11/2/89	EPO			
	0535670	4/7/93	EPO			
	2695227	3/4/94	France			

OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

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	4,920,483	Apr. 24, 1990	Pogue et al.			
	4,845,664	Jul. 4, 1989	Aichelmann, Jr. et al.			
	5,083,296	Jan. 21, 1992	Hara et al.			
	4,916,670	Apr. 10, 1990	Suzuki et al.			
	4,953,128	Aug. 28, 1990	Kawai et al.			
	4,945,516	Jul. 31, 1990	Kashiyama			
	4,937,734	Jun. 26, 1990	Bechtolsheim			
	4,330,852	May 18, 1982	Redwine et al.			
	5,390,149	Feb. 14, 1995	Vogley et al.			

FOREIGN PATENT DOCUMENTS

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	PCT Invitation to Pay Additional Fees with Communication Relating to the Results of the Partial International search, mailed April 21, 1997, for counterpart PCT Application No. PCT/US96/16835
	Steven A Przybylski, "New DRAM Technologies, A Comprehensive Analysis of the New Architectures," pp. iii-iv, 119-21, 138-58, 177-203 (MicroDesign Resource 1994)
	TMS626402, "2097 152-Word By 2-Bank Synchronous Dynamic Random-Access Memory", Texas Instruments, 1994, (pp. 5-3 to 5-23)
	"Architectural Overview", Rambus, Inc., 1992, pp. 1-24
	"MT4LC4M4E9 (S) 4 MEG X 4 DRAM", Micron Semiconductor, Inc., 1994, (pp. 1-183 to 1-196)
	"M5M4V16807ATP-10, -12, -15, Target Spec. (Rev. 0.3)", Mitsubishi Electric, May 7, 1993, (pp. 1-36)

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1	E. H. Frank, "The SBUS: Sun's High Performance System Bus for RISC Workstations," IEEE pp. 189-194, Sun Microsystems Inc. 1990
	H. L. Kalter et al. "A 50-ns 16Mb DRAM with a 10-ns Data Rate and On-Chip ECC" IEEE Journal of Solid State Circuits, vol. 25 No. 5, pp. 1118-1128 (Oct 1990)
	T. L. Jeremiah, "SYNCHRONOUS LSSD PACKET SWITCHING MEMORY AND I/O CHANNEL", IBM Technical Bulletin vol. 24 No. 10, pp. 4986-4987 (March 1982)
	T. Williams et. al., "An Experimental 1-Mbit CMOS SRAM with Configurable Organization and Operation", IEEE Journal of Solid State Circuits, vol. 23 No. 5, pp. 1085-1094 (Oct. 1988)
	K. Ohta, "A 1-Mbit DRAM with 33-MHz Serial I/O Ports", IEEE Journal of Solid State Circuits, vol. 21 No. 5, pp. 649-654 (Oct. 1986)
	K. Numata et. al. "New Nibbled-Page Architecture for High Density DRAM's", IEEE Journal of Solid State Circuits, vol. 24 No. 4, pp. 900-904 (Aug. 1989)
	D.V. James, "Scalable I/O Architecture for Buses", IEEE, pp 539-544, Apple Computer 1989
	S. Watanabe et. al., "AN Experimental 16-Mbit CMOS DRAM Chip with a 100-MHz Serial READ/WRITE Mode", IEEE Journal of Solid State Circuits, vol. 24 No. 3, pp. 763-770 (June 1982)
	A. Fielder et al., "A 3 NS 1K X 4 STATIC SELF-TIMED GaAs RAM", IEEE Gallium Arsenide Integrated Circuit Symposium Technical Digest, pp. 67-70, (Nov. 1988)
6	H. Kuriyama et al., "A 4-Mbit CMOS SRAM WITH 8-NS SERIAL ACCESS TIME", IEEE Symposium On VLSI Circuits Digest Of Technical Papers, pp. 51-52, (June 1990)

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